

1-digit Number Recognition and Decomposition

Open Number Line Activities

Standard: Kindergarten Number Sense 1.2 Count, recognize, represent, name, and order a number of objects up to 30.

Objective: Students recognize and place the numbers 1-3 on a number line.
Students decompose and recompose the numbers 1-3 using different number combinations on a number line.

Materials: Teacher's number line in sleeve and multiple copies of number line recording page.
Labeled number lines in clear sleeves, 1 per student. (See attached)
Digit cards for numbers 1-3, 1 set per partner pair and 1 set for teacher.

Introduction: Today we are going to use number lines to represent numbers.

First we're going to see how numbers can go on a number line. Mathematicians say we *represent* numbers on a number line.

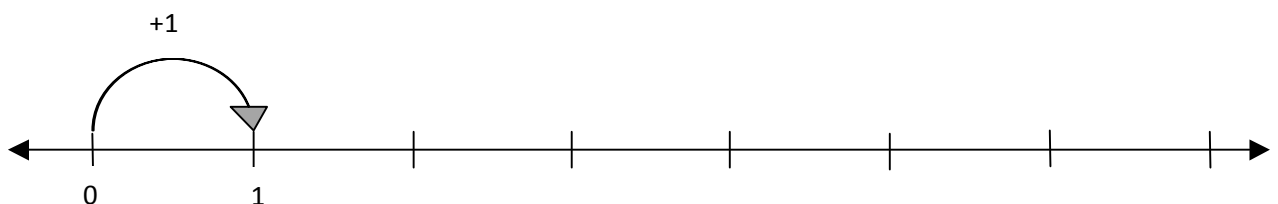
Show a number line in a sleeve.

A number line has a line, an arrow that goes both directions, and numbers. On a number line we start with the smallest number and the numbers get bigger and bigger as they go this way, to the right. (point as you display and discuss). The numbers get smaller and smaller as they go this way, to the left (point).

Give students their number lines in sleeves. Guide students to point to the line, arrows, and numbers on the number lines in their sleeves. Have them say the names for the elements of the number line as they point. Have them point to the numbers getting smaller and larger.

We can show numbers on a number line. Point to zero, now let's jump to 1. One jump to 1.

"Jump" with finger from zero to 1, and then record on number line practice page. Guide students to show a jump from zero to 1 and say with you "one jump to 1".

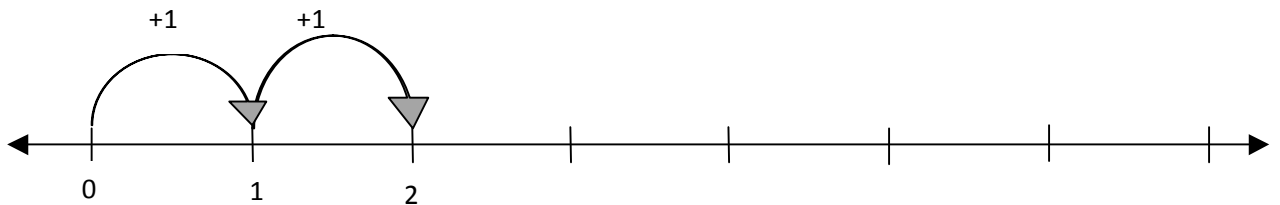


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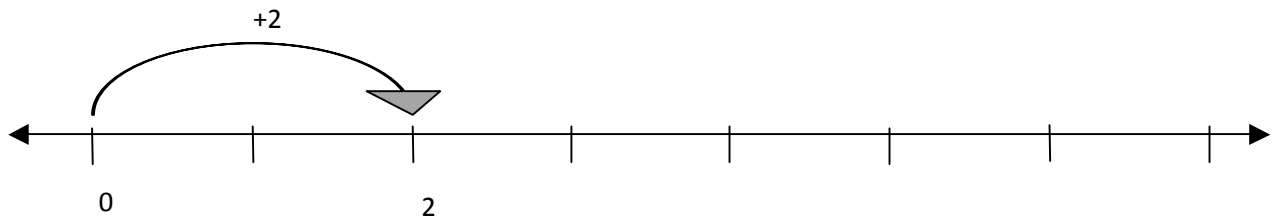
We can show 2 on a number line. Point to zero, now let's hop to 2. One jump to 1. One jump to 2. How many hops did we make? Choral Response: [2]

Teacher record on number line. Guide students to jump to 2 in 2 jumps. Students call out the jumps in choral response.



We can jump to 2 another way. We can jump from 0 all the way to 2 in one jump. Point to zero, and jump over the 1 to the 2 in one jump. One big jump to 2.

Record and show students both ways to jump to 2. Guide students to point and jump to 2 both ways on their number lines. Students say words to match their jumps chorally.



I wonder what ways we can jump to 3? Can you think of any ways? Think. Whisper to your partner.

Call on a few volunteers and then model their ideas with all students doing the jumps on their number lines. Make sure to guide them through all the ways to jump to 3 listed below and use words to describe jumps as well as record the jumps to compare all the ways to jump to 3. .

How many other ways can we hop to 3? [Discuss and demonstrate with students how you can hop to 1, and then hop from 1 to 3, as well as hopping from zero to 2 and then to 3, as well as one hop all the way to 3.] Record.

Look at all the ways we hopped to 3. What's different about the ways we hopped to 3? What is the same?

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Now you will do this activity with your partner. One partner will pick a digit card to say which number to jump to. Then both partners show by pointing and saying all the ways to jump to that number. Then the second partner picks a card and you repeat.

Formative Assessment: Note Student responses as you walk the room. Ask students who are ready to show hops to 4. Students who are struggling can work in a small group near the teacher-recorded number line examples.

Closing:

What did you notice about all the ways we jumped to the number 3 on the number line?
We can represent numbers on number lines by jumping to those numbers in different combinations of jumps.

Continue on subsequent days with larger numbers.

Students can record all the ways to jump to different numbers on number line practice pages.

Connect to student work with addition. Show addition with manipulatives and on number lines.

Connect to student work with subtraction. Show subtraction with manipulatives and on number lines.

Additional Activity Ideas

* Draw a number line on the playground or on the classroom floor with tape. Students hop to numbers.

